# FIGHTING AND WINNING ENCIRCLED

A Monograph
By
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Armor



19960617 046

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First Term AY 95-96

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## REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing Instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducting this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

| Davis Highway, Suite 1204, Arlington, VA 2220    |  | ·  |  |
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| 14. SUBJECT TERMS                                |  |  | 15. NUMBER OF PAGES                          |
| Encircled Force.                                 | Power Projection                         | the thirty of the second   | 53   |
| Encircle ment                                    |  | A STATE OF THE STA | 16. PRICE CODE                               |
|  | Mary and the second                      |  | - 400 - 41 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - |
| 17. SECURITY CLASSIFICATION OF REPORT            | 18. SECURITY CLASSIFICATION OF THIS PAGE | 19. SECURITY CLASSIFIC<br>OF ABSTRACT  | CATION 20. LIMITATION OF ABSTRACT            |
| UNCLASSIFIED                                     | UNCLASSIFIED                             | UNCLASSIFIED   | UNLIMITED                                    |

### **ABSTRACT**

FIGHTING ENCIRCLED AND WINNING by MAJ Thomas H. Cowan Jr., USA, 53 pages.

This monograph answers the question "What must an encircled unit be provided and do in order to successfully hold?" Following the end of the Cold War and the subsequent drawdown, the United States adopted a military strategy of force projection. Given this new strategy, any future adversary of the United States is likely to attack early to deny the points of entry into the theater. The initial deploying U.S. forces must be prepared to fight and defend these points of entry until relieved or reinforced.

The author uses historical examples of encirclements from World War II, Korea, and Vietnam to support lessons learned during a major simulation exercise in which a division had to fight encircled. The report presents the preconditions that an operational commander must set for the encircled unit which are: provide the necessary combat power, apply external pressure on the enemy, maintain air superiority, provide logistical support, and give the tactical commander freedom of action. Then the report takes a systems perspective to analyze the tactical commander's mission using the battlefield operating systems as a tool. The author presents the specific tasks the commander must execute and the concepts that he must consider. If the operational commander does not provide the necessary preconditions for success or the tactical commander does not take a systems perspective when setting up the defense, the encircled unit will fail.

## SCHOOL OF ADVANCED MILITARY STUDIES MONOGRAPH APPROVAL

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## Section I: Introduction

## **Background**

The fall of the Berlin Wall in November of 1989 will symbolize for all time the end of the Cold War. It symbolized an end to one of the largest build-ups of weapons in the history of humanity. Almost overnight the mighty military power of the former Soviet Union collapsed as the nation separated into several diverse parts. Many of the former members of the Warsaw Pact alliance began looking to the West for aid in attempts to create their own independent destinies. No one can argue that the end of the Cold War was a complete victory for the United States and its allies. However, this great victory was to create even greater problems.

Just like at the end of every major conflict in its history, the United States military began a reduction in personnel strength after the Cold War. It could no longer justify its Cold War budget. The problem was determining what level of reduction. The collapse of the Soviet Union left the United States with a very unstable international situation. The bipolar world that had existed since the end of World War II had kept the rest of the world fairly stable even though its primary elements had been at odds with each other. The fall of the Iron Curtain left the United States as the sole superpower with a world full of potential hot spots but no major adversary. This new situation called for a change in strategy.

The United States could no longer predict with a high degree of certainty where the next conflict would be. There was also a need to reduce the force. The public outcry against having a large force deployed overseas caused the United States to change its old

strategy of forward-deployed forces. A new strategy of power projection became the national approach. Force projection is what the army called its part of the power projection strategy. FM 100-5, <u>Operations</u>, defines force projection as "the demonstrated ability to rapidly alert, mobilize, deploy, and operate anywhere in the world." The strategy of force projection was to receive its first major test in the fall of 1990.

In the early morning hours of 2 August, Iraq's elite Republican Guard attacked into Kuwait and defeated Kuwait's armored forces. The U.S. National Command Authority, realizing the threat to the rest of the world, directed the military to respond. The United States Army had soldiers on the ground in Saudi Arabia within 31 hours of the order. The United States Army deployed a force of over eight division equivalents over the next six months. Following an air campaign that severely destroyed the Iraqi command and control and reduced their combat power, this force of over 300,000 soldiers and marines attacked with its allies into Iraq and Kuwait. In less than 100 hours, the combined force had destroyed or captured the majority of the Iraqi forces which Saddam Hussein had deployed in Kuwait. This was a major victory and clearly demonstrated the United States Army's ability to successfully conduct force projection operations. <sup>2</sup>

The United States did not rest on the success of this operation. It did a thorough assessment to try to improve upon this performance. One of the studies that came out of this process was the Mobilization Requirement Study (MRS). The MRS reviewed all aspects of mobility to include airlift, sealift, transportation and prepositioning of forces.

One of the major recommendations to come out of the MRS was the establishment of the

Army Strategic Mobility Program (ASMP). The ASMP established the need for the following deployment capabilities:

- A light brigade anywhere in the world within 4 days
- A light division anywhere in the world within 12 days
- A heavy brigade (pre-positioned afloat) anywhere in the world within 15 days
- Two heavy divisions from CONUS anywhere in the world within 30 days
- A five-division corps with support (more than 150,000 soldiers) anywhere in the world within 75 days.<sup>3</sup>

Due to the significance of Kuwait to the world oil market, a heavy brigade's set of equipment was pre-positioned in Kuwait. The ASMP recommendations were all attempts to make the United States Army's next force projection operation a much smoother and more rapid one. However, the United States was not the only one taking notes during Desert Storm.

## **Significance**

The United States Army must assume that any future adversary learned the lesson that they can not give the United States Army six unmolested months to deploy their forces into a theater. As a senior Army officer stated while addressing the School of Advanced Military Studies: "Don't allow the U.S. time to mass. Destroy U.S. air and sealanded elements immediately." We must anticipate that any aggressor will know an effective way to win is to attack the U.S. Army as early as possible. They must destroy our initial deployment force and deny us the air and sea points of entry into the theater.

This could very likely result in our initial forces finding themselves encircled. The United States Army must be prepared for this event.

According to Eliot Cohen and John Gooch in their book, Military Misfortunes, there are three types of failure: the failure to learn, the failure to anticipate and the failure to adapt. The result is catastrophe if a nation suffers all three of these failures simultaneously. In this case, if we do not realize that our initial forces which deployed to Desert Shield were unable to defend against an early attack, there is a failure to learn. If we do not understand that a future enemy may attack early to deny the points of entry into the theater, the U.S. Army will have failed to anticipate. If the U.S. Army does not carefully plan the mission and properly prepare the force structure of the initial units deployed under its force projection strategy, it has failed to adapt. These three failures could cause a catastrophe.

#### **Current Doctrine**

Army capstone manual, FM 100-5, <u>Operations</u>, states that a commander might "leave a unit behind the enemy or give it a mission that entails a high risk of entrapment." It does not tell the commander who orders a unit to become encircled what he must provide that unit in order for it to be successful. This information is also not in FM 100-15, <u>Corps Operations</u>, or in FM 71-100, <u>Division Operations</u>. Nor do doctrinal manuals discuss what the unit must do in advance of becoming encircled for it to be successful. The doctrine directs units to react to an encirclement instead of anticipating one. In most cases in history where a unit was encircled and held on until relieved, the unit spent a large amount of time preparing before it was encircled. All of the doctrinal information on

encircled forces deals with a unit which unexpectedly finds itself encircled. The greatest attention is given to an encircled unit which must break-out from the encirclement. This is likely not a feasible option in a force projection operation.

Robert Curran, in his monograph about the army needing to create a doctrine on how to conduct encirclements, points out that "from the time of Alexander at Cannae, through the Soviets at Stalingrad, to the North Vietnamese at Dien Bien Phu, the history of warfare has been filled with examples of how one army overcame an opponent by encirclement. Each instance above led to destruction of the enemy and a strategic and operational victory." Since throughout history most encircled forces are not successful, and our doctrine states that a commander may intentionally cause a unit to become encircled, it is paramount that doctrine provide guidance to an encircled unit that provides a basis for success.

## Purpose and Methodology

The purpose of this monograph is to answer the question "What must an encircled unit be provided and do in order to successfully hold?" Because of our projected strategic mobility, it is likely that the United States will have at least a division-equivalent on the ground prior to the initiation of hostilities. Therefore, the unit size used in addressing the primary topic of this monograph is the division.

This paper will first address several secondary questions in order to answer the above question. First, what is the current doctrine for fighting encircled? Secondly, what must the theater-level commander provide the encircled commander to facilitate success? Thirdly, what Battlefield Operating Systems (BOS) elements must the tactical commander

consider? Finally, what negative psychological effects does being encircled have on the troops and what must the commander do to offset these effects?

The intent of this paper is to take observations learned from fighting an encircled division during Prairie Warrior '95 and authenticate them through the use of logical analysis, authoritative documentation and historical example. Prairie Warrior is the year ending graduation exercise for the Command and General Staff College at Fort Leavenworth. During the 1995 exercise, a prepositioned U.S. division was given the mission to defend the city of Taejon to deny the enemy the vital lines of communication which run through the city. This division was to hold the city until friendly forces could deploy enough combat power in theater and attack to relieve the encircled force.

The analysis of this exercise will focus on the operational level and will deal with a force that was given a mission to retain a specific piece of ground and was encircled while executing this mission. The results of the analysis will provide a set of considerations that will help establish future doctrine for a division to fight encircled and win.

This initial section of the monograph sets the background for the problem investigation. The author then reviews and assesses the current doctrine on the subject. He will define the problem in terms of both the primary and secondary questions. The author then gives the methodology by which he will reach his conclusion and defines some basic terms that will be important throughout the monograph.

In section two, this monograph will look at what the operational level commander must provide to the encircled commander for him to successfully hold. The paper will show the need for him to provide the necessary combat power and combat multipliers to

the encircled commander. It will show how the operational commander must keep constant external pressure on the enemy and how he must establish air superiority in the region. This section also describes the tremendous logistical support that the tactical commander must have and concludes by showing the need to give the commander on the ground the freedom of action to fight his fight.

In section three, the author changes his focus to the tactical commander and analyzes what that commander must do to be successful. The author will go through each one of the elements of the BOS and explain those tasks that are vital to the success of the unit. Under command and control, the author will look at the mental impact of being encircled and discuss why being encircled is so devastating to a unit. He will address those actions that the tactical commander must complete in order to overcome these negative factors.

Section four is the concluding section; it will summarize the major points made in the paper and discuss the steps necessary to avoid a future military misfortune.

## **Basic Definitions**

This paper relies on a common understanding of three terms: encircled forces, success, and operational level of war.

FM 101-5, Operational Terms and Graphics, defines encirclement as "the loss of freedom of maneuver to one force resulting from an enemy force's control of all routes of egress and reinforcement." FM 71-100, Division Operations, states that "encirclement occurs when the enemy cuts off all ground routes for evacuation and reinforcement of division ground forces." By combining these two definitions, the definition of an

encircled force used in this paper is developed: "a unit or group of units that have all ground routes of evacuation and reinforcement cut off by the enemy."

Any definition of success must address the unit's mission. Lester W. Grau noted:

"Although encirclement can be forced on a defender (particularly on one committed to forward defense), there are instances when force groupings may deliberately be left behind to be encircled. For example, forces left to defend cities, thus to be encircled, can be used to split an advancing enemy force, divert significant enemy forces from their main objective, and disrupt enemy lines of communication. In these and other ways, an encircled force may actually assist the main defending force in fulfilling its primary mission of defeating the enemy. Therefore, commanders of encircled forces may not withdraw from a partial or complete encirclement without their superior's permission, since they may still be able to play a significant role and complement their superior's overall plan." 10

These are exactly the cases that will confront the initial forces in a force projection operation. In order to be successful a unit must accomplish one or more of three tasks. It must: 1) defend the points of entry into the theater, 2) divert significant enemy forces from their main objective and disrupt enemy lines of communication, or 3) deny key terrain to the enemy until the United States can deploy enough combat power to the theater to relieve the encircled force.

According to FM 100-5, the operational level of war is "focused on conducting joint operations - the employment of military forces to attain theater-strategic objectives in a theater of war and operational objectives in the theaters of operations through design, organization, and execution of subordinate campaigns and major operations." The initial deployment of troops into theater will be a strategic deployment. The initial missions that forces are given must be connected to the theater commander's ultimate operational objectives. Therefore, the deployment and mission of initial entry forces serve as a link between strategic aims and the operational objectives in the theater. Although their

specific actions will be tactical, the mission to fight encircled will greatly impact on the campaign which the theater level commander intends to execute. Since any initial entry force that becomes encircled will have a major impact on the theater campaign, there are certain actions that the theater level commander must execute in order for that unit to be successful.

## Section II: Operational Level

"It is the custom of military service to accept instructions of a command as orders, but when they are coupled with conditions that transfer the responsibility of battle and defeat to the subordinate, they are not orders."

Lt. Gen. James A. Longstreet

Combatant commanders, or CINCs, have the responsibility for employing the military power of the United States of America. Although they may and often do delegate the authority to accomplish missions, they can not relegate the responsibility for those missions to anyone. Therefore the CINC bears a lot of the responsibility for the success of any major operation. Many times in history the theater commander knew early that an encircled unit was in trouble and did not do what was necessary to have them succeed. The CINC must ensure that when he gives a subordinate a mission that his staff has set the conditions necessary for the subordinate to be successful.

The CINC conducts campaigns and major operations within a theater of operations in order to achieve his assigned objectives.<sup>14</sup> He serves as the link between the tactical employment of forces and the strategic objectives.<sup>15</sup> Combatant commanders translate national and theater strategy into strategic and operational concepts by developing theater campaign plans. <sup>16</sup> In order to ensure that they are successful in conducting a campaign, combatant commanders are continuously conducting joint operation planning.

Joint operation planning consists of planning for all the tasks necessary for conducting an operation. These tasks include: mobilization, deployment, employment, sustainment and redeployment of forces.<sup>17</sup> Given our current strategy of power projection and the likelihood of the initial forces becoming encircled, there are several items which the CINC must either provide to or for the commander of the initial forces in a theater for that commander to succeed.

Prairie Warrior '95 identified the following items as being required by an encircled force: 1) the combat power to hold its position, 2) prestocked supplies sufficient to withstand the siege, 3) a relief force available within the time frame necessary to relieve the unit, 4) air superiority, 5) enough air (both supply and attack assets) available to be dedicated to the encircled force, and 6) engineer assets must be available to provide both for the survivability and countermobility aspects of the encircled forces. After doing an analysis of the Demyansk pocket during World War II, Paul Tiberi identified three actions that the higher commander must take in support of the encircled force commander:

- \* An early counterattack against the encircling force may be advantageous to the encircled force in that it provides an opportunity to reestablish friendly contact before the enemy strengthens his encircling ring.
- \* The operational commander may have to shift or reallocate resources to prevent the annihilation of the encircled force. As with any combat maneuver, this decision appears to depend on a thorough appreciation of associated risk and on the boldness and timeliness of the decision.
- \* The vision to anticipate future operational requirements even under extreme conditions might be an essential ingredient of the operational commander's character.<sup>19</sup>

By combining these two lists, the author comes up with five essential items which the theater commander must provide the encircled commander: 1) the necessary combat

power to accomplish the mission, 2) external pressure on the enemy, 3) air superiority over the area of operations, 4) continuous logistical support, and 5) freedom of action.

## **Necessary Combat Power**

One of the aspects that combatant commanders look at while conducting campaign planning is the deployment and initial employment of forces into the theater of operations. Normally, initial reaction forces into any theater of operations are operating in accordance with a contingency plan (CONPLAN). It is during the planning of the CONPLAN that the CINC staff must consider the likelihood of the initial force being encircled.

The military's joint planning manual, Joint Pub 5-0, <u>Doctrine for Planning Joint Operations</u>, states: "Employment planning defines how existing and projected capabilities will be used to attain objectives. It involves military actions required to pursue warfare successfully: evaluating enemy actions and capabilities, devising and selecting courses of action (COA), and positioning forces and resources; to create advantages in combat and exploit resulting opportunities to attain objectives despite enemy resistance."<sup>20</sup>

The failure of the French in Vietnam at the 1953 battle of Dien Bien Phu clearly demonstrates two problems that occur if this is not done properly. First of all the enemy detected a weakness that it could exploit: "When French planning put into that valley numerous French troops operating with relatively little artillery and armor and at the extreme range of their combat aircraft, the Communist high command began to find the valley of Dien Bien Phu most attractive." The second problem that occurred was that the higher headquarters gave them insufficient forces to accomplish both the preparation of the base and the extensive patrolling that the higher headquarters ordered the

commander to do.<sup>22</sup> The French realized too late that they had to organize Dien Bien Phu defensively instead of as a patrol base.<sup>23</sup> These mistakes in the initial planning stages were to spell defeat for the French at Dien Bien Phu.

When looking at the possible contingencies within their geographic area of responsibility, it is important that the CINC staff insure that they consider an early enemy attack to deny the air and sea points of entry into the theater. When designing their plan, the CINC staff must do a careful assessment of enemy capabilities and complete an accurate assessment of what minimum size forces and capabilities will be necessary for initial forces to secure the points of entry. Since the necessary capabilities depend upon the way that the tactical commander employs his forces, the type of capabilities needed will be covered in section three under the appropriate BOS.

#### **External Pressure**

The importance of putting external pressure on the encircling force can be demonstrated by looking at how a successful encirclement works. The Red Army gained great experience at conducting encirclements on the eastern front during World War II and explained their methods in their doctrine (see Figure 1). The Soviets' basic concept was to create a penetration by massing armored forces along a unit boundary or against a German ally. The armored forces would push rapidly to the rear, creating either a single or double envelopment depending upon the number of penetrations achieved (See frame 1, Figure 1). Once the encirclement had occurred, the armored forces would begin to create an outer ring called a "contravallation" that would serve as a deterrent against relief force

attacks (frame 2).

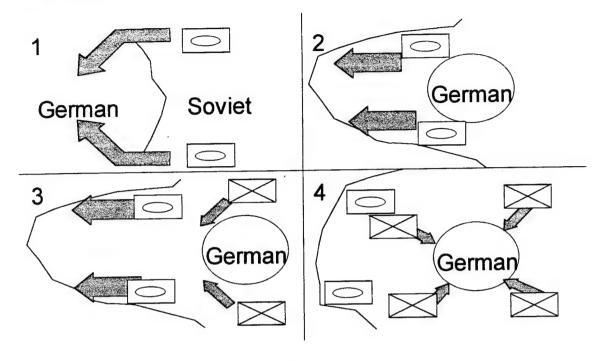


Figure 1

These forces would continue the expansion of the encirclement area out to operational depths, thus making attempts to escape more difficult for trapped enemy forces. In the case of either a single or double envelopment, once the encirclement occurred, the Soviets created an inner ring called a "circumvallation" that they occupied with follow-on infantry forces (frame 3). This force's mission would be to attack to destroy the pocket and prevent a breakout by the surrounded enemy (frame 4). The area between the inner and outer rings would be used by artillery, reserves, and mobile forces to strengthen weak points and to assist in either eliminating the encirclement or helping in the expansion of the outer ring.<sup>24</sup>

The Germans pointed out the best counter to these tactics. The pressure on the encircled force could be considerably reduced if strong relief forces attacked in the

vicinity of the pocket. Even inadequate attempts at relief from the outside were better than none at all.<sup>25</sup> An attack from outside the encirclement would force the enemy to use additional forces to defend the outer ring and keep him from concentrating on the encircled force. Current exercises still demonstrate this need for external pressure.

During Prairie Warrior '95, the staff noted that:

Once a friendly force has become encircled, whether by design or by accident, it must become the friendly focus of attention and assets or it will be lost. The reason is because it will quickly become the focus of enemy assets to destroy it. Pressure must be exerted on the enemy at all times to keep him from focusing assets on the encircled force. This was not done for the first two days during PW and caused the encircled unit to take its heaviest losses during that time frame. Once the Corps attacked, the enemy was forced to fight in two directions and pressure was immediately reduced on the encircled force.<sup>26</sup>

The French at Dien Bien Phu thought about creating diversionary attacks to relieve pressure on Dien Bien Phu, but General Navarre, the theater commander, rejected the plan. Instead he wasted the additional forces on an unrelated mission which did not cause General Giap, the Vietnamese commander, to divert any forces from the inner ring.<sup>27</sup>

In any future scenario, we could increase the chances of survivability for the encircled force by applying external pressure to the enemy. An allied force could provide this pressure in a case where the only forces that the United States had in theater were encircled. If we had one force encircled defending a piece of key terrain, other U.S. forces in theater would have to keep pressure on the enemy. If neither of these options were available, the commander could use air power and naval gunfire to keep the enemy from concentrating on the encircled force.

## **Air Superiority**

One of the primary considerations in employing joint forces is in gaining freedom of action for operations against the enemy. In no other dimension is an advantage more obvious and beneficial than in the air. If a combatant can quickly gain air superiority over the enemy, he gains the ability to strike at the time and place of his choosing. This has a major psychological impact on both sides. He also gains the ability to use the air as an effective and secure supply route. Given our current power projection strategy and the likelihood of the initial forces being encircled, air superiority is a necessary precondition.

The offensive advantage of using air in the interdiction role and in the close air support role is obvious. If the tactical commander can defeat concentrations of enemy ground forces through interdiction early, then his force will not have to engage those forces. Also, the more offensive air that the commander uses against the enemy, the less ammunition that the encircled commander needs. The Germans pointed out these advantages in the following observation after World War II: "The employment of fighter-bombers has particular significance in the defense of a pocket where, as a rule, there is a shortage of artillery ammunition and an increased need for concealment and for saving the strength of the encircled troops."

Air superiority can make up for a lack of other essential assets that an encircled force needs. The German study pointed out that air support "has to make up for the critical deficiencies that always aggravate the situation in a pocket (lack of artillery ammunition, heavy losses of weapons and tanks, etc.), and to bolster the morale of the encircled troops during their difficult struggle."<sup>29</sup> The use of air power can have a

An observation made at Singapore during its encirclement showed the negative impact of not having air superiority: "Going to the front in a battle area where the enemy controls the air is a metaphysical term. Nobody can go to the front. Everyone is at the front already. The front is too much with one, not only late and soon, but all day and all night. The only time when the front is not there overhead is when it rains. Sometimes there is position bombing even in the rain, when the target is ... familiar by landmark."

Not having air superiority also decreases your ability to conduct resupply. If you do not have air superiority, the ability to fly in transport planes in enough numbers to keep a large unit supplied is doubtful. This was one of the major problems for the German forces at Stalingrad. They could not get enough planes through to meet the logistical demand. Failure to control the air also has an impact on the ability to resupply by sea. During the fight for Singapore, Japanese air superiority created a major problem: "To send in anything American larger than a destroyer, it was recognized, would be useless in the face of Japanese aircraft superiority. The Japs had started by getting air superiority through aircraft-carriers in the South China Sea, and now they were rapidly taking bases in northern Malaya and in this way getting both land-based and sea-based superiority. Because of the advantages of offensive air, the need for resupply transport and the psychological impact, it is a vital precondition that the theater commander establish air superiority over the area of operations.

## **Logistical Support**

Thoughout history, commanders defeated encircled units by isolating them and then causing them to run out of essential supplies. John Lucas, in his book War on the Eastern Front 1943-1945, points out that "in the days when linear warfare was the standard method of disposing troops in battle, a unit encircled and cut off by the enemy was considered lost, for its surrender through starvation, lack of ammunition or sickness could only be a matter of time." All of the major encircled forces that were defeated suffered greatly from a lack of logistical support. Therefore it is a vital precondition that the theater commander ensure logistical resupply to the encircled force.

During Prairie Warrior '95, the encircled division staff noted that the decision to intentionally allow a force to be encircled must not be entered into lightly. It is very similar to the old days of siege warfare. Although the primary means of resupply will be by air, it is vital that the unit be prestocked before being cut off. Certain items, particularly bulk fuel, Class V and Class IV, will be used in such quantities that even unconstrained air resupply will not be able to meet the demand.<sup>34</sup>

The CINC staff must do a good logistical preparation of the battlefield around the key points of entry into the theater during the deliberate planning phase. Any supplies that can be purchased locally will greatly reduce the requirement to bring them in. Host nation contracts should be arranged for bulk Class III, Class IV barrier material and for host nation medical facilities and support. These actions will greatly reduce the amount of

bulky supplies that transportation must bring in early and help set the conditions for the encircled commander to succeed.

#### Freedom of Action

One of the hardest aspects of higher level command is knowing when to help and when to give their subordinates freedom of action. It is very easy for the commander outside the encirclement to give orders he feels will help, but often he can hurt the situation more than he helps. The CINC sets the conditions for his subordinate to succeed in the area of command and control by giving him command of all the elements in the encirclement and by giving him the freedom of action to decide how best to employ them.

American experience during World War II bears out this point. In an analysis of the battle of Sidi Bou Zid in North Africa authors at the Command and General Staff

College observed that "commanders must not dictate actions to their subordinates in such a rigid, detailed fashion that they strip their subordinate commanders of initiative and the authority to conduct the battle. Issuing specific instructions two echelons down is a dangerous practice which is only justified by unusual circumstances." This analysis concluded that the subordinates who received very specific instructions came to rely on those instructions and failed to take the initiative themselves.

The Germans at Stalingrad had a similar problem. Even though General Paulus repeatedly asked for freedom of action to do what was necessary to save the Sixth Army, Hitler refused. His orders: "Surrender is ruled out. This battle will be fought to the last man and the last round." This order eliminated all initiative and condemned the Sixth Army to their deaths. On 24 January, General Zitzewitz, a directed telescope for the OKH

(High Command for the Armed Forces), told Hitler: "Mein Fuhrer, I wish to report that we cannot order the soldiers of Stalingrad to fight to the last round, because they are no longer physically able to do so and because they no longer have a last round."<sup>37</sup>

When Stalingrad fell two weeks later, Hitler took the blame for it. In fact General Manstein, the commander of Army Group Don, pointed out that when Hitler summoned him to Supreme Headquarters, Hitler personally told him "I alone bear the responsibility for Stalingrad!" Manstein went on to state that it was commendable for Hitler to take the blame for the failure at Stalingrad, but it was regretful that he was not to learn any lessons from it.<sup>38</sup>

The true sadness of Stalingrad was not that the Soviets destroyed the Sixth Army, but that the German High Command was to repeat the mistake several times:

On many occasions in German experience, the futile attempt was made to evaluate a local situation and to conduct the operations of encircled troops by remote control from a far distant higher echelon, if not directly from Hitler's headquarters. Indecisiveness on the part of the pocket commander and measures which invariably came too late were the consequences of such limitations imposed by higher headquarters. Whenever a commander receives rigid instructions from a distance at which the capabilities of the encircled forces cannot be properly judged-and are usually overestimated-his willingness to accept responsibility will rapidly decline."<sup>39</sup>

The CINC must set the preconditions necessary for the encircled commander to succeed. He must give him the forces and combat multipliers necessary to succeed. He has to provide air superiority, constant logistical support and freedom of action. Joint Pub 1 lays out these requirements:

Maintaining freedom of action is vitally important. There are many components to securing the freedom to act...Adequate logistical support is essential, as is maintaining the operations security of plans and gaining the fullest possible surprise. Having a force structure that provides insurance

against unanticipated developments or the underestimation of enemy strengths is important as well.<sup>40</sup>

Without these preconditions, the encircled commander has little chance of success. The theater commander usually is not the only one at fault when there is a major military failure, but he does bear a large amount of the responsibility.

### Section III: Tactical Level

"If defense is the stronger form of war, yet has a negative object, it follows that it should be used only so long as weakness compels, and should be abandoned as soon as we are strong enough to pursue a positive object." Carl Von Clausewitz

Once the operational commander has set the preconditions, the responsibility to execute the defense of the encirclement falls on the tactical commander and his staff. Any unit which is deploying to another area of operations will probably be initially required to defend. By taking advantage of the power of the defense, the commander can husband his forces and build up enough combat power to eventually go on the offense. As the quote above states, the tactical commander must never lose sight of the fact that he is attempting to pursue the positive aim.

In order to properly conduct the defense, we must first understand the defense.

Clausewitz asked:

What is the object of defense? Preservation. It is easier to hold ground than take it. It follows that defense is easier than attack, assuming both sides have equal means. Just what is it that makes preservation and protection so much easier? It is the fact that time which is allowed to pass unused accumulates to the credit of the defender. He reaps where he did not sow. Any omission of attack - whether from bad judgment, fear, or indolence - accrues to the defender's benefit.<sup>42</sup>

With a strategy of force projection, any passage of time will aid the deploying side. It is absolutely vital that the initial forces on the ground buy time for the build up of forces.

They must defend the points of entry into the theater and any other key pieces of terrain that the theater commander designates.

Fighting from within an encirclement is a special form of defense. Since it is terrain oriented, it is very similar to an area defense, but there are still many aspects of fighting encircled that are different from a normal area defense. There is no room for errors. The encircled force normally has no other units nearby to come to its aid, and the enemy has the ability to alternate units against the defender without the defender being able to relieve his forces. By taking a complete systems approach and looking at the defense of an encirclement from the perspective of each battlefield operating system (BOS), a commander and his staff can synchronize all of the elements of combat power which will help him execute his mission successfully.

## Intelligence

No one will argue the importance of intelligence to any military operation. For a unit which is encircled, the ability to determine what the enemy will do, and where, may be the difference between success and failure. As the division staff pointed out at the end of Prairie Warrior '95, "Intel is vital to the success of an encircled force. An encircled force must be able to know where the enemy is going to attack him and with what type of force. He must be able to pinpoint the location of the enemy long range artillery so that he can have it taken out." These three items (enemy course of action, location of enemy

concentration, and location of enemy deep strike assets) are vital to the success of the encircled commander.

When a unit is preparing for encirclement it must establish a flexible defense which can adapt to the enemy main effort. Otherwise the encircled force will spend valuable time, effort, and resources preparing a defense which the enemy can easily defeat. This happened at Singapore in World War II. Even though the British had spent \$80,000,000 preparing Singapore for attack, they failed because the defense could not adjust to the enemy course of action.

The men who built Singapore had expected an attack by sea. Although it required the Japanese nine weeks to reach the great causeway that separated the island from the mainland of Johore, the Singapore men were still even at the end, half expecting an invasion by sea. Hidden behind the dropped screens of slitted bamboo were the best-known and as it proved the least useful great guns in the world...They could defend from an attack by sea, but they could not be swiveled round to fire...The Japanese, in the heavy artillery, high-level, and dive-bombing attacks that eventually rendered Singapore Island helpless, never even bothered to attack these gun emplacements...This might have been an indication that no sea invasion was impending.<sup>44</sup>

Since an encircled unit does not have a lot of depth to blunt an enemy attack, it must anticipate enemy actions and strike the enemy while he is concentrating to attack.

The Germans noted the importance of reconnaissance to an encircled unit when they stated that aggressive reconnaissance added depth to the battlefield and provided security for the main force. They felt that they were successful at Demyansk because they conducted more aggressive reconnaissance and patrolling than did their adversary. 

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Identifying the enemy concentrations and quickly transmitting that information to the commander gave the encircled unit a major advantage.

Reliable reconnaissance in the past has meant putting people on the ground. In our ever increasing high-tech world, other options now exist. During the fight over Khe Sanh, the U.S. Marines were to rely heavily on the information provided by the use of sensors. "A surprise awaited the estimated 18,000 North Vietnamese regulars who now surrounded Khe Sanh...Before the siege began, Air Force and Navy aircraft had planted electronic sensors along roads in southern Loas. These devices picked up either sound or seismic vibration." Through the information gained by the sensors, the commander was able to strike enemy concentrations and supply convoys. This denied the enemy the ability to mass. Today even more advanced systems, such as unmanned aerial vehicles (UAVs) with thermal capability, can be used to provide continuous reconnaissance of the perimeter without the high risk associated with dismounted patrols.

An encircled unit must be able to take out an enemy's deep strike capability. If these systems can sit back and engage the encircled units without retaliation, the enemy can reduce the encircled force without having to conduct an assault. Intelligence must be able to quickly locate those enemy deep strike assets and track the target until it can be destroyed.

The capabilities needed to continuously monitor the perimeter in depth and to search for and track enemy deep strike assets are normally not assigned at the division level. Since these capabilities greatly increase the survivability of the encircled force, they must be included in the troop list.

#### Maneuver

One of the major vulnerabilities for any modern encircled force will be the logistical resupply point, either the airfield or the port, and the unit needs to defend that point. There are four key elements that the encircled commander must include under maneuver: 1) seize the dominating terrain, 2) establish a strong interlocking perimeter, 3) have a constant mobile reserve, and 4) have a force dedicated to defeating infiltrators.

John English, when writing On Infantry, noted that a unit which was waiting for relief had to seize the tactically important ground, particularly the dominating heights. <sup>47</sup> This was a lesson that the French learned the hard way at Dien Bien Phu and which the Americans did not repeat at Khe Sanh. Col. David E. Lownds, the commander of the encircled force at Khe Sanh, ordered a redeployment of his forces at Khe Sanh once he realized that he was being encircled. "Lownds' redeployment now took at least a passing account of the battle for Dien Bien Phu 14 years earlier, when French paratroopers trapped in a valley had been engulfed by General Giap's forces in the hills. Lownds had no intention of staging a replay of that disaster." By denying the enemy the high ground, the enemy loses the ability to observe down into the encircled perimeter, while the encircled force has the ability to look down on any attempts by the enemy to concentrate.

The encircled commander must create a strong, mutually supporting defense with a strong outer ring. He can not afford to lose too much ground because he needs to retain freedom of movement within his perimeter. All of his positions must have interlocking fires and be mutually supporting. The Germans stated these points based on their experiences during World War II: "In the initial phase, during which the entire perimeter is

to be held, everything up front! An encircled force can ill afford loss of terrain.

Therefore, strong reserves must be held close by; the battle position must be a closely knit system of strong points with a well-coordinated fire plan for all infantry heavy weapons...If this cannot be accomplished because of inadequate forces, the perimeter should be shortened deliberately to the point where the defenses can be organized." The same observation was made by authors at the Command and General Staff College during an analysis of the Battle of Sidi Bou Zid: "All forces must be mutually supporting. The use of independent strong points in a main defensive line invites disaster. Only a coordinated defense can repel a serious assault by the combined arms force." The need to have mutually supporting positions was dramatically demonstrated by the destruction of Task Force MacLean during the Korean War at the Chosin Reservoir. "Because of the absence of adequate communications, the various elements of Task Force MacLean could not help one another. Each fought separate and desperate actions."

If an enemy attack is able to create a penetration, the need for a strong mobile reserve is obvious. During Prairie Warrior '95, the staff noted that in order to succeed the encircled commander must keep a mounted large reserve that can quickly defeat any serious penetrations. They saw that once the commander had committed his reserve, he had to have a plan to quickly reconstitute another reserve. This was necessary because the enemy would quickly attempt to penetrate in another location.<sup>52</sup>

It is important that the commander determine the circumstances under which he will commit his reserves. One of the brigade commanders during Prairie Warrior '95 stated that "piecemealing armor and mechanized companies in counterattacks around the

division perimeter was indecisive and costly. Counter attacks using overwhelming combat power, (one or more armor TFs) against smaller enemy elements were very effective, particularly when combined with close air support and army attack aviation." Army attack aviation can be used very effectively to destroy enemy penetrations, but it can not be counted on as a reserve unless the commander has no other option.

If a commander does not have an effective plan for the use of his reserves, he will waste it on actions which local subordinate commanders could handle. The German study observed that a commander must keep in mind that his reserves are limited and should not be committed unless a major threat develops at a decisive point. It is normal for purely local emergencies to be exaggerated and lead to urgent calls for assistance. Usually these local crises subside without the use of reserves, but if the commander commits his reserves he does not have them when he really needs them.<sup>54</sup>

Another problem for which the commander must have a plan and for which reserves should not be used is the problem of infiltrators. The commander must designate a different unit which will react to infiltrations. Enemy activity in the rear of an encircled unit will have a significant psychological effect on the rest of the force, so any threat must be handled quickly and decisively.<sup>55</sup> Such a threat can consist of conventional forces or guerrillas, but there must be a plan for dealing with them. The Germans at Demyansk found that partisans did not represent an overwhelming threat; however, infantry units still had to be diverted from the front lines to protect vulnerable supply depots and critical lines of communication.<sup>56</sup> Since the majority of the combat units in an encirclement are needed

in the primary defensive positions or in the reserves, it is best to create this reaction force from combat support elements or military police units.

Since all of these missions require combat units to execute, it is important that the CINC staff remember these requirements when they determine the troop list for the deployment. There are a few other concepts that they should keep in mind during deployment. Army attack aviation, while not a dependable reserve, is a very good rapid response capability that can quickly defeat penetrations and will be invaluable to the encircled commander. Heavily armored assets, while hard to transport into theater, are usually the best counterattack force.

## **Fire Support**

Fire support serves as a great combat multiplier and allows the encircled commander to conserve his direct fire weapon systems. Through the use of both lethal and non-lethal fires, the encircled commander can defeat enemy attacks early before they actually come into direct fire range of the perimeter. It is the combination of mortars, artillery, air support, naval gun fire and electronic warfare that gives the tactical commander this ability. There are five concepts that the tactical commander must keep in mind when employing fire support: 1) strike the enemy deep before he can mass on your perimeter, 2) use external assets and conserve internal assets, 3) synchronize fire assets, 4) retain freedom of fires and 5) do not make your plan completely dependent on fire support.

It is better to attack the enemy deep, where he is concentrating his forces. One of the major reasons for success at Khe Sanh was that the commander conducted deep attacks on the enemy reserves. This kept the enemy from being able to mass on the perimeter.

Instead of calling down the wrath of artillery and air bombardment on the Communist assault force, he directed massive saturation bombing in those areas around the hill where an astute NVA field commander might be expected to have deployed his reserves. The initiative paid off handsomely. It cut the umbilical. Throughout the night Lownds had the satisfaction of hearing the North Vietnamese commander shrieking over the radio for reinforcements-in vain. No reinforcements came. No one answered him. <sup>57</sup>

Deep operations should expand the battlefield in space and time to the full extent of friendly capabilities. Effective deep operations facilitate overall mission success and enhance protection of the force. During Prairie Warrior '95, successive corps deep operations should have destroyed the enemy deep strike assets and given the division additional freedom of action. Three separate enemy corps artillery groups and three corps rocket artillery groups concentrated their fires on the encircled division from the beginning of the operation. This significantly influenced the encircled divisions fight. Many of the casualties and deaths in the encircled unit were due to artillery. If the corps had aggressively struck deep with all the assets of fire support from the beginning, the division would not have suffered such dramatic loses.<sup>58</sup>

Since the corps was not concentrating on these deep artillery targets, the encircled commander used his own internal assets to do so. The division fire support officer made the following observation after the unit was relieved:

In an encirclement, conservation of assets is critical. By aggressively attacking the enemy forces at the beginning of the battle, we simply obtruded our combat power without the ability to build it back up. On the other hand, the enemy used our attacks to locate and defeat our deep attack assets, and because of our declining combat power, he was able to seize the initiative and attack at will. By this point we had lost our artillery,

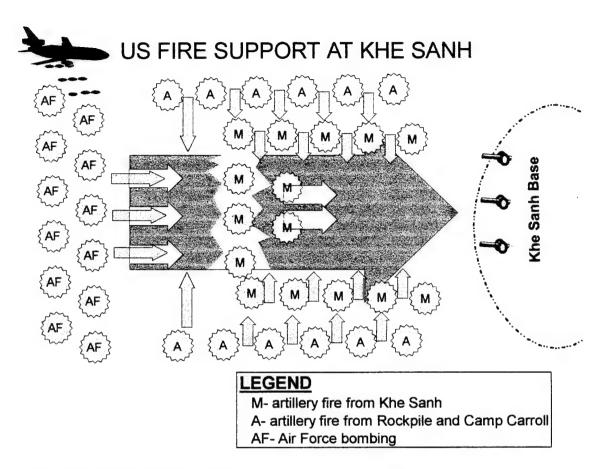
and had to blunt his attacks with our maneuver forces, resulting in high casualties.<sup>59</sup>

Once an encircled unit has lost internal assets such as artillery pieces and attack aviation, it is difficult to bring them into the encirclement by air. This is why it is important that the encircled unit conserve its assets and use external assets to strike the enemy deep.

During the fight for Khe Sanh, the encircled commander relied heavily on the use of air power flown in from outside the perimeter to attack enemy concentrations. "With anything between 5,000 and 10,000 Viet Cong on his immediate doorstep at that moment, and arguably another 20,000 in reserve, [the encircled commander did not have] enough to fend off a major assault. Without the massive, often mind-numbing fury of US air support he was subsequently able to call in under Operation Niagara, it would almost certainly not have been enough."

If a commander is going to defend an encirclement, it will take an amazing amount of fire support. It has been stated that during the 77-day siege of Khe Sanh, American aircraft dropped more than 100,000 short tons of bombs on the area around the marine base, making it the most heavily bombed target in the history of warfare. It would have been impossible for the tactical commander to generate this kind of fire power from internal assets alone.

The use of fire support must be synchronized in order to insure that it is being used effectively. Figure 2 demonstrates how they were able to synchronize the fires necessary to defeat an enemy attack at Khe Sanh.



A NVA column is allowed to advance until its head approaches the US perimeter. Fire is then opened. Three 105mm batteries within the base fire fixed concentrations (M) forming three sides of a box, with the open end towards the base. A fourth battery fires a walking barrage which moves up and down within the box. Infantry deal with any enemy emerging from the box's open end. Two batteries of 175mm guns from the Rockpile and Camp Carroll fire fixed linear concentrations (A) about 550 yards outside the inner box, while fighter-bombers and B-52s under radar control drop a rolling barrage of ordnance (AF) to smother the enemy reserves. 62

Figure 2

By synchronizing assets, each weapon system was able to concentrate on the part of the battlefield that it could influence the most. Subordinate commanders within the perimeter used their mortars to defeat the forces attacking along the perimeter.

The important element in this synchronization of fire support is that the encircled commander must be the one who controls the fires. This is necessary so that he retains the freedom to adjust the fires quickly to best augment his ground defense. Any additional external coordination which he must do takes time, and time is something which the encircled commander can not afford. After Prairie Warrior '95, the fire support officer stated that the "fire support coordination measures (FSCM) for an encircled unit must allow freedom to maneuver fires to the maximum range of their supporting systems throughout the entire operation. The stationary unit...should be the controlling element for FSCMs. The stationary force is continuously in the fight until completely relieved. This does not mean they control the fires of relieving forces, they simply control the lifting and shifting of fires, battle hand over, and FSCMs. The bottom line is one unit should dictate these and it should be the owning unit, not necessarily higher."

While fire support is a vital component for successfully defending an encirclement, it is not the only one and the plan should not completely depend upon superior fire support. An example of depending too much on the use of fire support is Dien Bien Phu: "Colonel Charles Piroth, the garrison's artillery officer, boasted that his guns would easily destroy an artillery pieces that the enemy might manhandle into firing position...To Colonel Piroth's astonishment, Giap's men dragged artillery through the northern highlands, battered the airfields on 10 March, and then advanced behind heavy barrages against the weaker outposts." He committed suicide on 15 March. 64

## Mobility, Countermobility and Survivability

J.F.C. Fuller once noted that "success in war depends on mobility and mobility upon time. Mobility leads to mass, to surprise and to security. Other things being equal, the most mobile side must win." For an encircled force it is vital that they have mobility within the perimeter and that they deny mobility to the enemy. However, survivability is also essential. This is because there is no room for retreat; to the encircled force there are only three options: survive, surrender, or die.

In order to accomplish all of these tasks there must be constant supervision of engineering assets. Centralized control must be maintained to ensure that no engineering assets sit idle. A hole not dug, a road not cleared, or a mine not laid can all mean the difference between survival and defeat.

Interior lines is a major advantage to an encircled unit, but only if it has greater speed of movement within the perimeter than the enemy has outside the perimeter. As shown by the observation from Singapore, this is not always the case. "In the battle for Singapore, the lightly equipped, individually mobile Japanese soldier literally ran circles around his British counterpart, who was overloaded with all the paraphernalia of European warfare, including steel helmets and gas masks." Speed of movement is not just an engineering responsibility, but a command issue. Everything that can be done to increase the mobility of the encircled force must be done. Assets must be dedicated to keeping the counterattack routes and supply lanes clear. Mobility in and around the seaport or airport must have continuous support. The unit may suffer irreversible damage, if these supply points are shut down even for short periods of time.

Prior to the unit being encircled it must dedicate assets to denying the enemy the ability to move laterally along the outside of the perimeter. These countermobility projects must channelize the enemy into kill zones, deny him a high speed avenue of approach, and cause him to dedicate major engineering assets to penetrate the perimeter.

The CINC staff should plan the majority of the countermobility work in the CONPLAN and the deploying unit should execute the plan as part of the deployment.

The logistical supplies necessary should have been coordinated for with the host nation and prepositioned. The unit can not afford to wait until deployment before it decides how it will defend the key points of entry.

The same is true for survivability positions. From the arrival of the very first digging asset, positions should be going into the ground. One of the contributing factors in the loss at Dien Bien Phu was that the French had no sense of urgency in building field fortifications.<sup>67</sup> These positions must be placed in depth and with interlocking fires.

Survivability is also not just an engineering problem. Camouflage and the dispersion of assets are also important for survival. An asset that is concentrated becomes a very lucrative target and usually can not be replaced. Smoke must be used to protect aircraft and ships when they are at the airport and seaport during day light hours. During the defense of Khe Sanh, smoke was a very effective technique for keeping aircraft from being destroyed during unloading.<sup>68</sup>

#### Air Defense

Even though it is the theater commander's responsibility to gain air superiority, the tactical commander must plan for the air defense of his encirclement because the enemy

could surge air at any point. This air, if properly coordinated with a ground offensive, could have a great impact on the encircled force.

The commander must centralize control over the active air defense systems. He must pick those key assets which he wants to safeguard. Some examples would be airfields, artillery, attack aviation and any consolidated logistical facilities. Since there is rarely enough air defense to adequately cover everything, other assets must rely on passive air defense measures. The commander must stress proper camouflage, dispersion, and resupply at night.

Tactical ballistic missiles (TBMs) are a relatively new consideration for air defenders and are a major threat to key assets. Any encircled unit must have protection against TBMs. Systems such as Patriot, which are designed to deal with this threat, are normally not assigned to a division. Therefore, when the CINC staff is designing initial reaction forces they must ensure that they include all air defense systems necessary to defend key assets.

## **Combat Service Support**

There are five major logistical concerns at the tactical level: 1) certain logistical skills which are not organic to a division are essential to an encircled force, 2) prestocking of supplies is vital, 3) a system of rationing must be imposed as soon as possible, 4) supplies must be dispersed throughout the perimeter, and 5) an encircled force must be medically self sufficient. The division staff during Prairie Warrior '95 was to learn these lessons the hard way even though these were lessons to be gleamed from the study of most historical encirclements.

The Germans noted from their World War II experience that an encircled force needed at least one usable airfield. They had to have the assets necessary to run that airfield day and night. Specifically for night operations, each airfield must have a radio beacon, a light beacon, and an adequate supply of signal flares. All airfields inside a pocket must be under the command of forceful officers supported by experienced personnel, a sizable number of technicians, and an adequate labor force for the unloading, stacking, and rapid distribution of supplies. A large number of the assets needed for running an airfield are not normally in a division and must be included in the division force package.

Prestocking of supplies is necessary because once the unit has become encircled it will be hard to get the amount of supplies necessary into the perimeter by air alone. At Khe Sanh, which is arguably the best example of a successful encirclement, it was observed that "an army marches on its stomach, but it gets no less hungry when it's lying on its stomach under a torrential downpour of artillery fire." Every round of ammunition, every mechanical spare part, every piece of equipment, every last ounce of food, had to be supplied by air. Even with absolute dominance of air superiority in the region during the 77 day siege, the air force was rarely able to meet daily minimum supply requirements. If a unit can not receive its daily minimum resupply rate by air, then it must have a large amount of supplies inside the perimeter before it is isolated.

Another way to deal with the resupply problem is to immediately begin a rationing system. The Germans noted that "regarding food and ammunition, it was vital that a rationing system be introduced and adhered to." It will be impossible to determine when

the encirclement will be broken; therefore every possible step must be taken to reduce the amount of indiscriminate waste.

An encircled unit can not afford to lose large amounts of supplies. Logistic units are very vulnerable. During Prairie Warrior '95, the staff observed that "although logistics are vulnerable all the time, they are extremely vulnerable when encircled. All the enemy has to do is fire into the inner perimeter and he hits a logistic center. It is vital that the logistics are protected and that each logistic unit is prepared to defend its perimeter quickly in case of an enemy penetration." Logistics can not be stockpiled in one location. During the opening hours at Khe Sanh, an enemy rocket landed in the major ammunition site, destroying 95% of the available ammunition. The Germans minimized this problem by creating and dispersing unit supply packets.

An area which often gets overlooked in the planning of a defense is the medical requirement. During the preparation for Prairie Warrior, the medical officer noted that many of the medical specialties that would be needed were not usually assigned to a division. Because medicine is normally done on an area basis, special units would have to be assigned to take care of the medical emergencies. This was a major shortcoming at Khe Sanh where the only operating table was the metal box in which the medical supplies had been flown in on. Stretchers were made from engineer pickets run through C-ration boxes. The doctor stated that "some things could have been done sooner to substantially reduce the number of casualties... Some things we asked for that we didn't get might have been able to save some Marines that weren't saved otherwise." The medical area is one

that the CINC staff must plan for in detail because the lack of medical support for the wounded can quickly become a morale problem.

#### Command and Control

An encircled unit commander and his staff must synchronize this BOS very effectively. Several factors already presented must be closely supervised to ensure success. There are also four other concepts under command and control that he can not ignore: 1) accurate reporting, 2) traffic control, 3) host nation personnel, and 4) the psychological impact.

It is absolutely essential that reports are accurately given in order that everyone in the chain of command will have an accurate picture of what is happening. Failure to report accurately can cause commanders to give orders which can be disastrous to their units. When the Chinese initially attacked around the Chosin Reservoir during the Korean War, General Almond, the 10th Corps commander, flew into the perimeter of Task Force MacLean. The situation of the unit was not accurately reported to him. "A serious command failure was thus in the making. MacLean was at fault for failing to have a clear picture of the situation in his own task force or for concealing it from Almond. But Almond was also at fault for failing to appreciate the enemy strength at the Chosin Reservoir and for failing to assess the situation in Task Force MacLean correctly, regardless of what he had heard from MacLean." This misunderstanding caused Almond to order MacLean to prepare to attack, thus condemning Task Force MacLean to being trapped and wiped out.

Inaccurate reporting can also cause the commander to commit the reserve prematurely. The Germans on the Eastern Front noted that "it is the result of the unusual tension prevailing in a pocket that purely local emergencies are often exaggerated and may lead to urgent calls for assistance. Frequently, such local crises subside before long, and the situation can be restored without the use of reserves - provided the pocket commander does not permit himself to be needlessly alarmed." As the section on maneuver pointed out, the commander must have a criteria for committing the reserve. More importantly, subordinate commanders must report their situation accurately.

Flexibility and mobility within the perimeter depends on traffic control. During Prairie Warrior '95, the division staff observed that the command must enforce rigid discipline in traffic control. If not, the counterattack force could get slowed down or valuable supplies might not arrive in time to blunt a penetration. The post-World War II study of German encirclements states that:

Effective traffic regulation is a prerequisite for all tactical moves inside the pocket. If an adequate road net still exists, separate routes must be designated for the movement of supply units and combat troops, and even for armor and infantry. The Germans found it expedient to co-ordinate all traffic in a pocket by preparing a regular timetable that had to be strictly observed. However, the problem of traffic regulation inside a pocket is not confined to troop movements. The most carefully devised system of traffic control can be upset by streams of fleeing civilians who are likely to be stricken with panic when caught in a pocket. As a rule, therefore, it is imperative for the security of the encircled force to prohibit and prevent any movement of the local inhabitants.<sup>79</sup>

Local national personnel can be either an advantage or a disadvantage.

Regardless, they are a command issue. The commander must deal with the problems of local inhabitants within the encirclement. Most encirclements will be in city areas and the

commander can not assume that residents will have evacuated the city before it becomes encircled. The CINC staff must have worked out a plan for dealing with the local population prior to the encirclement. Every encirclement that has been addressed in this study, with the exception of the Chosin reservoir, had a noncombatant civilian population with which the encircled commander had to deal. These are considerations which the local commander can not handle without augmentation and for which the ground work should have been done prior to deployment.

The local population can also be a great aid if used properly. At Dien Bien Phu, the French noted "the fact that such mixed French-Vietnamese units on the whole fought far better than purely Vietnamese units and also purely European units (who did not have the benefit of the knowledge of local terrain and language of their Vietnamese comrades) is an important lesson of the French-Indochina War that apparently was forgotten in South Viet-Nam ten years later." The commander may realize a great benefit if he plans on the integration of local forces into his units. The level of success with this measure will differ with each theater, but the commander should at least consider the concept.

The area which probably will take the most effort is dealing with the psychological impact of being encircled. The Germans noticed that an encircled force developed a type of neurosis, which they called "Kesselfieber" (encirclement fever). The Germans felt that the two greatest fears for their troops were the loss of links to home and the lack of medical treatment for the wounded.<sup>81</sup> This neurosis had a startling impact on the encircled troops.

"It is surprising how fast the bonds of discipline will disintegrate in an encirclement. Mobs of unarmed soldiers trying to proceed on their own, captured horses loaded down with superfluous equipment, and other similarly depressing sights were not uncommon in some of the larger German pockets in Russia. They had a contaminating effect and called for swift and drastic countermeasures." This neurosis caused them to give up on their units and led to a feeling of hopelessness with each man just trying to get out. This same effect was noted at Khe Sanh even though it was a successful defense. "They were dead-tired after the first week; hollow-eyed and buzz-brained after the first month...it was one hell of a siege of the mind...what Giap's tactics managed very successfully to instill in the mind of every Marine behind the wire was that there were only two likely exits from Khe Sanh-the medevac helicopter or the body bag."

The psychological impact of being surrounded and cut off from other friendly troops can be devastating. It causes the soldiers to become greatly afraid for themselves. They feel trapped, isolated and all alone. They seek only to survive. This fear for personal safety can cause a unit to disintegrate.

The Germans felt that absolute discipline was necessary in order to handle this problem and that the leadership of the organization was vital. "Experience has shown that only seasoned troops, in the best fighting condition and under the firm control of their commanders, are able to withstand the mental strain of combat in encirclement ...The highest standards of discipline, more important in this than in any other situation, must be upheld by the officers and the noncommissioned officers of an encircled force; it is their personal conduct that sets the example. Force of character, as in all critical situations,

acquires the greatest significance; it sustains the will to fight and may, indeed, determine the outcome of the battle. More than ever the place of the commander, under such circumstances, is in the midst of his troops; their minds will register his every action with the sensitivity of a seismograph."

The leadership must be present with their troops, suffering the same problems that the soldiers are. "Also, it was important, indeed essential, that the ordinary soldier should be aware that the staff and the senior commanders were undergoing the same privations that he himself was expected to bear. The presence of the senior commander in the front line had to be a common occurrence." If the troops feel that their leadership is not having to endure the same hard ships, their willingness to fight for their leaders decreases. In World War II, Field Marshall Kesselring attributed the loss of ten Italian divisions in North Africa to the failure of the Italian officers to endure the same conditions as their troops.

An Italian officer led a segregated life; having no perception of the needs of his men, he was unable to meet them as occasion required, and so in critical situations he lost control. The Italian private, even in the field, received quite different rations from the officers. The amount multiplied in ratio to rank... The officers ate separately and were very often unaware of how much or what their men got. This undermined the sense of comradeship which should prevail between men who live and die together. <sup>86</sup>

It was personal leadership, hard training and discipline which caused General Puller's First Marine Division to do so well when it was encircled at Chosin.

When the First Marine Division, as part of X Corps, was surrounded in the area of the Chosin Reservoir by General Sung Shin-lun's Chinese Ninth Field Army, which had as its object the annihilation of the Marine body, the correctness of Puller's training philosophy was demonstrated. Under appalling conditions and a seemingly hopeless situation, the First Marine

Division-its dead lashed to vehicle hoods, running boards, and gun barrels-advanced 'in another direction' for 13 days and 35 miles through strong Chinese resistance out of the 'Frozen Chosin' and into legend. 87

In no other operation is leadership more demanding and personal presence more important than in an encirclement. In order to deal with the psychological impact of being encircled it takes the type of leadership spelled out in FM 100-5:

Psychiatric casualties decrease when morale, unit cohesion, leadership and training are strong. The leader is the key. He must develop realistic, tough training programs and promote individual confidence and unit capabilities. At the same time, he must inspire in his soldiers the confidence that he will do everything in his power to protect them...Leaders must understand the conditions that can lead to battlefield stress and deal with them quickly and effectively. A well-led, disciplined, and mentally conditioned soldier can overcome extremes of hardship and uncertainty.<sup>88</sup>

A unit can not acquire command and control after it begins to deploy. Just as in the case of many of the other BOS, the unit and its leadership must have anticipated and prepared for the circumstances that it would find itself in prior to its deployment. Without proper preparation and planning, there is no way that a commander could possibly hope to synchronize the actions of his unit or staff once it becomes encircled.

#### **Section IV: Conclusion**

"History is a catalog of mistakes. It is our duty to profit by them."

B. H. Liddel Hart 89

As the United States armed forces anticipate the operations of the future, they must consider the fact that the initial forces deployed into a theater may become encircled. We must learn from the experiences of those encirclements.

The U.S. armed forces must look at the impact that being encircled has on a force.

Commanders must train their forces to be prepared for this eventuality. Leaders must

toughen their soldier's and marine's minds and resolve to ensure that they do not break under the stress. Such leaders must understand that their personal example and moral courage may be all that gives their soldiers strength during that time frame. They should concentrate on those concepts which give troops strength. They need to make sure that the troops know that they are being taken care of and that their leadership is doing the right things.

The tactical commander instills confidence in his soldiers by carefully planning the operation. A commander must address certain aspects of the BOS to ensure success.

While most of these seem very obvious, overlooking any one of them can have a major impact on the operation.

It is not just tactical commanders who must plan for success. The theater commander must set the stage for success, beginning with the initial deployment. He needs to provide the lead force commander with all the components of combat power necessary to hold the position until the rest of the force can deploy. He should put external pressure on the enemy so that it can not concentrate forces on the encirclement. He must guarantee air superiority in the area of operations to ensure both logistical and operational aerial support. While logistical resupply is very important, the CINC must also prestock bulk supplies in the area of operations because aerial resupply alone will be inadequate. All of these requirements help give the local commander the freedom of action needed to succeed.

If the U. S. armed forces look carefully at their future power projection operations, they will be able to anticipate what the enemy needs to do to defeat them. If the U. S.

armed forces study the encirclements of the past, they will learn the lessons necessary to succeed. If the operational commander properly sets the conditions and gives the local commander freedom of action, the local commander will have the ability to react to what the enemy does. By doing these three things, the U. S. Armed Forces should avoid a future catastrophe.

#### **END NOTES**

<sup>&</sup>lt;sup>1</sup> United States, Department of the Army, FM 100-5: Operations, Washington: GPO, 1993, p. 3-1.

<sup>&</sup>lt;sup>2</sup> United States, Department of the Army, FM 100-5: Operations, Washington: GPO, 1993, p. 3-2.

<sup>&</sup>lt;sup>3</sup> John H. Tilelli, "Force Projection: Essential to Army Doctrine," <u>Military Review</u>, January 1994, p. 16-17.

<sup>&</sup>lt;sup>4</sup> According to SAMS nonattribution policy, the source can not be revealed. However, the source was in a high enough position to make a major impact during the war and is a major decision maker in the military today.

<sup>&</sup>lt;sup>5</sup> Eliot A. Cohen and John Gooch, Military Misfortunes, (New York: The Free Press, 1990), p. 27.

<sup>&</sup>lt;sup>6</sup> United States, Department of the Army, FM 100-5: Operations, Washington: GPO, 1993, p. 10-5.

<sup>&</sup>lt;sup>7</sup> Robert J. Curran, <u>Shutting the Door: U.S. Army Doctrine for Encirclement/ Envelopment Operations at the Operational Level of War</u>, Fort Leavenworth: Command and General Staff College SAMS Monograph, May 1986, p. 1.

<sup>&</sup>lt;sup>8</sup> United States, Department of the Army, FM 101-5: <u>Operational Terms and Graphics (Final Draft)</u>, Washington: GPO, 1995, p. 1-108.

<sup>&</sup>lt;sup>9</sup> United States, Department of the Army, FM 71-100: <u>Division Operations (Final Draft)</u>, Washington: GPO, 1995, p. 7-14.

<sup>&</sup>lt;sup>10</sup> Lester W.Grau, <u>Fighting Within An Encirclement: A Comparison Of National Concepts</u>, Fort Leavenworth, KS: Soviet Army Studies Office, 1991, p. 3.

<sup>&</sup>lt;sup>11</sup> United States, Department of the Army, FM 100-5: Operations, Washington: GPO, 1993, p. 6-2.

<sup>&</sup>lt;sup>12</sup> United States, Joint Chiefs of Staff, Joint Pub 1: <u>Joint Warfare of the Armed Forces of the United States</u>, Washington, DC: G.P.O., 1995, p. III-9.

<sup>&</sup>lt;sup>13</sup> This was the case with Stalingrad and Dien Bien Phu as pointed out by Bernard B. Fall, <u>The Siege of Dien Bien Phu: Hell in a Very Small Place</u>, New York: Da Capo Press, 1966, p. 85.

<sup>&</sup>lt;sup>14</sup> United States, Joint Chiefs of Staff, <u>Joint Doctrine Capstone and Keystone Primer</u>, Washington, DC: G.P.O., 1995, p. 29.

<sup>&</sup>lt;sup>15</sup> United States, Joint Chiefs of Staff, Joint Pub 3-0: <u>Doctrine for Joint Operations</u>, Washington, DC: G.P.O., 1995, p. II-2.

<sup>&</sup>lt;sup>16</sup> United States, Joint Chiefs of Staff, Joint Pub 5-0: <u>Doctrine for Planning Joint Operations</u>, Washington, DC: G.P.O., 1995, p. ix.

<sup>&</sup>lt;sup>17</sup> United States, Joint Chiefs of Staff, Joint Pub 5-0: <u>Doctrine for Planning Joint Operations</u>, Washington, DC: G.P.O., 1995, p. vii.

- <sup>21</sup> Bernard B. Fall, <u>The Siege of Dien Bien Phu: Hell in a Very Small Place</u>, New York: Da Capo Press, 1966, p. 21.
- <sup>22</sup> Bernard B. Fall, <u>The Siege of Dien Bien Phu: Hell in a Very Small Place</u>, New York: Da Capo Press, 1966, p. 40.
- <sup>23</sup> Bernard B. Fall, <u>The Siege of Dien Bien Phu: Hell in a Very Small Place</u>, New York: Da Capo Press, 1966, p. 87.
- <sup>24</sup> Robert J. Curran, "Shutting the Door: U.S. Army Doctrine for Encirclement / Envelopment Operations at the Operational Level of War," Fort Leavenworth: Command and General Staff College SAMS Monograph, May 1986, p. 18. Curran cites Red Army Field Regulations, <u>Field Service Regulations 1944</u>, translated by Military Affairs, 17 January 1985, p. 82.
- <sup>25</sup> United States, Department of the Army, Department of the Army Pamplet No. 20-234: <u>Historical Study-</u>Operations of Encircled Forces: German Experiences in Russia, Washington: GPO, 1952, p. 62.
- <sup>26</sup> United States, Department of the Army, "AAR Comments from the 22ID," Fort Leavenworth, KS: U.S. Army Command and General Staff College, CTAC, Prairie Warrior After Action Review Comments from the Students, 1995, p. 33.
- <sup>27</sup> Bernard B. Fall, <u>The Siege of Dien Bien Phu: Hell in a Very Small Place</u>, New York: Da Capo Press, 1966, p. 41-42, 46-47.
- <sup>28</sup> United States, Department of the Army, Department of the Army Pamplet No. 20-234: <u>Historical Study-Operations of Encircled Forces: German Experiences in Russia</u>, Washington: GPO, 1952, p. 71.
- <sup>29</sup> United States, Department of the Army, Department of the Army Pamplet No. 20-234: <u>Historical Study</u>-Operations of Encircled Forces: German Experiences in Russia, Washington: GPO, 1952, p. 67.
- <sup>30</sup> George Weller, Singapore is Silent, New York: Harcourt, Brace and Company, 1943, p. 87.
- <sup>31</sup> Heinz Schroter, Stalingrad, New York; E.P. Dutton & Company, 1958, p. 162-174.
- <sup>32</sup> George Weller, Singapore is Silent, New York: Harcourt, Brace and Company, 1943, p. 82.
- <sup>33</sup> James Lucas, War on the Eastern Front 1943-1945, New York: Bonanza Books, 1982, p. 177.
- <sup>34</sup> United States, Department of the Army, "AAR Comments from the 22ID," Fort Leavenworth, KS: U.S. Army Command and General Staff College, CTAC, Prairie Warrior After Action Review Comments from the Students, 1995, p. 42. These observations can also be found in DA Pam 20-234: "Supply by air cannnot satisfy all the requirements of an encircled force; it can only remedy some of the important

<sup>&</sup>lt;sup>18</sup> United States, Department of the Army, "AAR Comments from the 22ID," Fort Leavenworth, KS: U.S. Army Command and General Staff College, CTAC, Prairie Warrior After Action Review Comments from the Students, 1995, p. 31.

<sup>&</sup>lt;sup>19</sup> Paul Tiberi, "Encircled Forces: The Neglected Phenomenon of Warfare," Fort Leavenworth: Command and General Staff College MMAS thesis, 1985, p. 67-68.

<sup>&</sup>lt;sup>20</sup> United States, Joint Chiefs of Staff, Joint Pub 5-0: <u>Doctrine for Planning Joint Operations</u>, Washington, DC: G.P.O., 1995, p. xiii.

deficiencies...It is not likely to change, even if absolute superiority in the air is assured and an adequate number of planes can be assigned to the operation...Yet, under the most favorable circumstances supply by air remains an extremely uneconomical measure. Therefore, when encirclement appears inevitable, every possible effort should be made in advance to build up an adequate supply reserve, at least of heavy and bulky items; even after the encirclement has become a fact, this might still be done bt a strongly armed supply convoy forcing its way into the pocket." United States, Department of the Army, Department of the Army Pamplet No. 20-234: <u>Historical Study-Operations of Encircled Forces: German Experiences in Russia</u>, Washington: GPO, 1952, p. 61, 69.

<sup>&</sup>lt;sup>35</sup> United States, Department of the Army, <u>CSI Battlebook 4-D: The Battle of Sidi Bou Zid</u>, Fort Leavenworth, KS: Combat Studies Institute, 1984, part V-2.

<sup>&</sup>lt;sup>36</sup> Heinz Schroter, Stalingrad, New York: E.P. Dutton & Company, 1958, p. 246.

<sup>&</sup>lt;sup>37</sup> Paul Carell, <u>Stalingrad</u>, Atglen, PA: Schiffer Military / Aviation History, 1993, p. 205.

<sup>&</sup>lt;sup>38</sup> Erich Von Manstein, <u>Lost Victories</u>, ed. and trans. Anthony G. Powell, Novato, CA: Presidio Press, 1982, p. 365.

<sup>&</sup>lt;sup>39</sup> United States, Department of the Army, Department of the Army Pamplet No. 20-234: <u>Historical Study-Operations of Encircled Forces: German Experiences in Russia</u>, Washington: GPO, 1952, p. 52.

<sup>&</sup>lt;sup>40</sup> United States, Joint Chiefs of Staff, Joint Pub 1: <u>Joint Warfare of the Armed Forces of the United States</u>, Washington, DC: G.P.O., 1995, p. III-6.

<sup>&</sup>lt;sup>41</sup> Carl Von Clausewitz, On War, eds & trans. Michael Howard and Peter Paret, Princeton, NJ: Princeton University Press, 1976, p. 358.

<sup>&</sup>lt;sup>42</sup> Carl Von Clausewitz, On War, eds. & trans. Michael Howard and Peter Paret, Princeton, NJ: Princeton University Press, 1976, p. 357.

<sup>&</sup>lt;sup>43</sup> United States, Department of the Army, "AAR Comments from the 22ID," Fort Leavenworth, KS: U.S. Army Command and General Staff College, CTAC, Prairie Warrior After Action Review Comments from the Students, 1995, p. 31.

<sup>&</sup>lt;sup>44</sup> George Weller, Singapore is Silent, New York: Harcourt, Brace and Company, 1943, p. 57, 171.

<sup>&</sup>lt;sup>45</sup> Paul Tiberi, "Encircled Forces: The Neglected Phenomenon of Warfare," Fort Leavenworth: Command and General Staff College MMAS thesis, 1985, p. 63.

<sup>&</sup>lt;sup>46</sup> Ray Bond, The Vietnam War, New York: Crown Publishers, 1979, p. 156, 166.

<sup>&</sup>lt;sup>47</sup> John A. English, On Infantry, New York: Praeger Publishers, 1981, p. 180.

<sup>&</sup>lt;sup>48</sup> Michael Ewing, Khe Sanh: The Illustrated History of the Vietnam War, New York: Bantom Books, 1987, p. 37.

<sup>&</sup>lt;sup>49</sup> United States, Department of the Army, Department of the Army Pamplet No. 20-234: <u>Historical Study-Operations of Encircled Forces: German Experiences in Russia</u>, Washington: GPO, 1952, p. 54-55.

<sup>&</sup>lt;sup>50</sup> United States, Department of the Army, <u>CSI Battlebook 4-D: The Battle of Sidi Bou Zid</u>, Fort Leavenworth, KS: Combat Studies Institute, 1984, part V-2.

<sup>&</sup>lt;sup>51</sup> Clay Blair, The Forgotten War: America in Korea 1950-1953, New York: Doubleday, 1989, p. 460.

<sup>&</sup>lt;sup>52</sup> United States, Department of the Army, "AAR Comments from the 22ID," Fort Leavenworth, KS: U.S. Army Command and General Staff College, CTAC, Prairie Warrior After Action Review Comments from the Students, 1995, p. 32.

<sup>&</sup>lt;sup>53</sup> United States, Department of the Army, "AAR Comments from the 22ID," Fort Leavenworth, KS: U.S. Army Command and General Staff College, CTAC, Prairie Warrior After Action Review Comments from the Students, 1995, p. 33.

<sup>&</sup>lt;sup>54</sup> United States, Department of the Army, Department of the Army Pamplet No. 20-234: <u>Historical Study</u>-Operations of Encircled Forces: German Experiences in Russia, Washington: GPO, 1952, p. 60.

<sup>&</sup>lt;sup>55</sup> United States, Department of the Army, "AAR Comments from the 22ID," Fort Leavenworth, KS: U.S. Army Command and General Staff College, CTAC, Prairie Warrior After Action Review Comments from the Students, 1995, p. 42.

<sup>&</sup>lt;sup>56</sup> Paul Tiberi, "Encircled Forces: The Neglected Phenomenon of Warfare," Fort Leavenworth: Command and General Staff College MMAS thesis, 1985, p. 66.

<sup>&</sup>lt;sup>57</sup> Michael Ewing, Khe Sanh: The Illustrated History of the Vietnam War, New York: Bantom Books, 1987, p. 62.

<sup>&</sup>lt;sup>58</sup> United States, Department of the Army, "AAR Comments from the 22ID," Fort Leavenworth, KS: U.S. Army Command and General Staff College, CTAC, Prairie Warrior After Action Review Comments from the Students, 1995, p. 36-37.

<sup>&</sup>lt;sup>59</sup> United States, Department of the Army, "AAR Comments from the 22ID," Fort Leavenworth, KS: U.S. Army Command and General Staff College, CTAC, Prairie Warrior After Action Review Comments from the Students, 1995, p. 36.

<sup>&</sup>lt;sup>60</sup> Michael Ewing, Khe Sanh: The Illustrated History of the Vietnam War, New York: Bantom Books, 1987, p. 39.

<sup>61</sup> Ray Bond, The Vietnam War, New York: Crown Publishers, 1979, p. 162.

<sup>&</sup>lt;sup>62</sup> Ray Bond, The Vietnam War, New York: Crown Publishers, 1979, p. 163.

<sup>&</sup>lt;sup>63</sup> United States, Department of the Army, "AAR Comments from the 22ID," Fort Leavenworth, KS: U.S. Army Command and General Staff College, CTAC, Prairie Warrior After Action Review Comments from the Students, 1995, p. 34.

<sup>&</sup>lt;sup>64</sup> Ray Bond, The Vietnam War, New York: Crown Publishers, 1979, p. 55.

<sup>&</sup>lt;sup>65</sup> J.F.C. Fuller, memorandum of 1917, *Memoirs of an Unconventional Soldier*, 1936, as quoted in Peter G.Tsouras's book, <u>Warrior' Words</u>, New York, 1992, p. 264.

<sup>&</sup>lt;sup>66</sup> John A. English, On Infantry, New York: Praeger Publishers, 1981, p. 157.

<sup>&</sup>lt;sup>67</sup> Bernard B. Fall, <u>The Siege of Dien Bien Phu: Hell in a Very Small Place</u>, New York: Da Capo Press, 1966, p. 53.

<sup>&</sup>lt;sup>68</sup> Michael Ewing, Khe Sanh: The Illustrated History of the Vietnam War, New York: Bantom Books, 1987, p. 95.

<sup>&</sup>lt;sup>69</sup> United States, Department of the Army, Department of the Army Pamplet No. 20-234: <u>Historical Study-Operations of Encircled Forces: German Experiences in Russia</u>, Washington: GPO, 1952, p. 69.

<sup>&</sup>lt;sup>70</sup> Michael Ewing, Khe Sanh: The Illustrated History of the Vietnam War, New York: Bantom Books, 1987, p. 24.

<sup>&</sup>lt;sup>71</sup> Michael Ewing, Khe Sanh: The Illustrated History of the Vietnam War, New York: Bantom Books, 1987, p. 122.

<sup>&</sup>lt;sup>72</sup> James Lucas, War on the Eastern Front 1943-1945, New York: Bonanza Books, 1982, p. 179.

<sup>&</sup>lt;sup>73</sup> United States, Department of the Army, "AAR Comments from the 22ID," Fort Leavenworth, KS: U.S. Army Command and General Staff College, CTAC, Prairie Warrior After Action Review Comments from the Students, 1995, p. 42.

<sup>&</sup>lt;sup>74</sup> Michael Ewing, Khe Sanh: The Illustrated History of the Vietnam War, New York: Bantom Books, 1987, p. 71, 79.

<sup>&</sup>lt;sup>75</sup> United States, Department of the Army, Department of the Army Pamplet No. 20-234: <u>Historical Study-Operations of Encircled Forces: German Experiences in Russia</u>, Washington: GPO, 1952, p. 61.

<sup>&</sup>lt;sup>76</sup> Michael Ewing, Khe Sanh: The Illustrated History of the Vietnam War, New York: Bantom Books, 1987, p. 132-133.

<sup>&</sup>lt;sup>77</sup> Clay Blair, The Forgotten War: America in Korea 1950-1953, New York: Doubleday, 1989, p. 463.

<sup>&</sup>lt;sup>78</sup> United States, Department of the Army, Department of the Army Pamplet No. 20-234: <u>Historical Study-Operations of Encircled Forces: German Experiences in Russia</u>, Washington: GPO, 1952, p. 60.

<sup>&</sup>lt;sup>79</sup> United States, Department of the Army, Department of the Army Pamplet No. 20-234: <u>Historical Study-Operations of Encircled Forces: German Experiences in Russia</u>, Washington: GPO, 1952, p. 57-58.

<sup>&</sup>lt;sup>80</sup> Bernard B. Fall, <u>The Siege of Dien Bien Phu: Hell in a Very Small Place</u>, New York: Da Capo Press, 1966, p. 8.

<sup>&</sup>lt;sup>81</sup> James Lucas, War on the Eastern Front 1941-1945, New York: Bonanza Books, 1982, p. 179.

<sup>&</sup>lt;sup>82</sup> United States, Department of the Army, Department of the Army Pamplet No. 20-234: <u>Historical Study-Operations of Encircled Forces: German Experiences in Russia</u>, Washington: GPO, 1952, p. 53.

<sup>&</sup>lt;sup>83</sup> Michael Ewing, Khe Sanh: The Illustrated History of the Vietnam War, New York: Bantom Books, 1987, p. 93.

<sup>&</sup>lt;sup>84</sup> United States, Department of the Army, Department of the Army Pamplet No. 20-234: <u>Historical Study-Operations of Encircled Forces: German Experiences in Russia</u>, Washington: GPO, 1952, p. 53.

<sup>&</sup>lt;sup>85</sup> James Lucas, War on the Eastern Front 1941-1945, New York: Bonanza Books, 1982, p. 179.

<sup>&</sup>lt;sup>86</sup> John A. English, <u>On Infantry</u>, New York: Praeger Publishers, 1981, p. 125 quoted from the memoirs of Field Marshall Albert Kesselring, describing why the Italians lost ten divisions to a British force of only two divisions in 1940 in North Africa

<sup>&</sup>lt;sup>87</sup> John A. English, On Infantry, New York: Praeger Publishers, 1981, p. 174.

<sup>88</sup> United States, Department of the Army, FM 100-5: Operations, Washington, DC: GPO, 1993, p. 14-2.

<sup>&</sup>lt;sup>89</sup> B.H. Liddel Hart, Thoughts On War, London: Faber and Faber, 1944, p. 138.

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